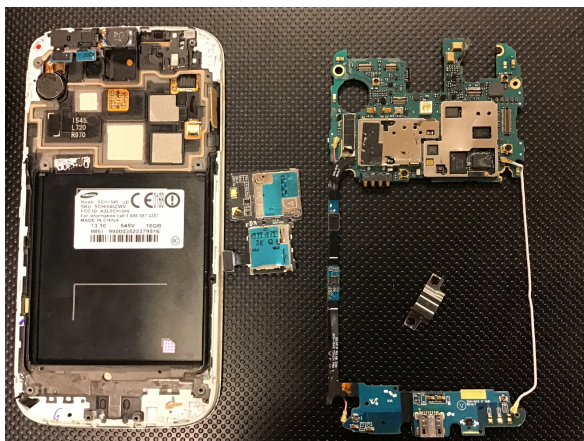


Samsung S4

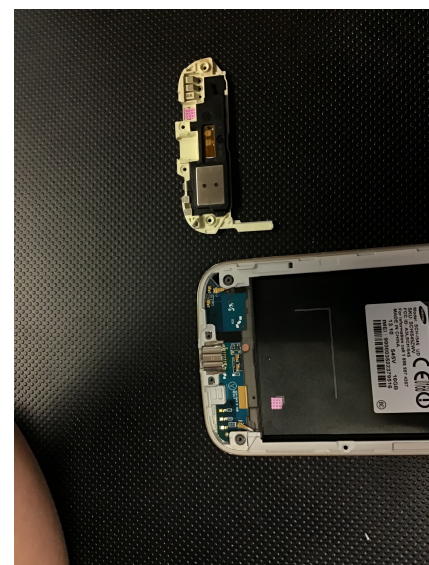
Bethel HEAT Team 43179 B: Zackary Kennedy, Justin Reynolds, Marc Jenkins, Barrett Walsh, Mariau Budu, Malachi Adams



The device we chose for our online challenge was a 2013 Samsung Galaxy S4 phone. We selected this because it is a device that we didn't know much, if anything at all, about and when we looked at a phone, we don't wonder what is in it, we just pick it up and start playing. To us, knowing what is happening in a

phone is one of the most important things to know technology wise.

Some of the chips and components we found were 3.8 V Li-on battery, a Samsung S2MPS11, a QUALCOMM(MDM9615M) Semiconductor, a Samsung MV3W00LM-B310 flash memory, and a Samsung K3QF2F200C-XGCB 2GB PDDR3 RAM. The 3.8 Li-on battery is a small piece holding chemical energy. If it loses its



energy, the phone loses power and therefore dies.

The battery is basically what keeps the phone running. Without it, the phone would never run, no matter how many components are inside of the phone. The Samsung S2MPS11 is a PMIC(Power Management Integrated Unit) that holds 48 power building blocks. This is the main power supply for the phone, meaning that it is the center of all the power in the phone. The

QUALCOMM(MDM9615M) Semiconductor helps conduct current through the phone, but not as



much current as the conductor. When you hear this you might think that it isn't necessary, but they are a vital part when it comes to unlocking different advances on your phone. The Samsung KMV3W00LM-B310 flash memory is the storage for the phone. When you download an app, however much storage it takes up slowly fills up the 2 GB of storage that you have. Finally, the Samsung K3QF2F200C-XGCB 2GB PDDR3 RAM is also a storage system, but you can take things out or just temporarily store



different files or papers that you are currently working on. From doing this experiment, we learned what happens when you do basically anything on your computer. We also learned that it takes someone who truly understands phones and how they work to help build, code, and program a new phone.